

Amendments to the Claims

Please add new Claims 91-102. The Claim Listing below will replace all prior versions of the claims in the application:

Claim Listing

- 1-53. (Canceled)
54. (Previously presented) A method of decontaminating a gas, comprising removing water contaminants from the gas by passing the gas through a body of decontaminant, the decontaminant comprising about 70% by volume of an electropositive metal component, about 15% by volume of a late transition metal component and about 15% of a high silica zeolite component.
- 55-56. (Canceled)
57. (Previously presented) A method of decontaminating a gas, comprising removing sulfur oxide contaminants, nitrogen oxide contaminants or both, from the gas by passing the gas through a body of decontaminant, the decontaminant comprising about 30% by volume of an electropositive metal component, about 50% by volume of a late transition metal component and about 20% by volume of a high silica zeolite component.
58. (Previously presented) A method of decontaminating a gas, comprising removing one or more of neutral polar protic, neutral polar aprotic, alkaline and polar acidic contaminants from the gas by passing the gas through a body of decontaminant, the decontaminant comprising 10% to 80% by volume of an electropositive metal component, 10% to 80% by volume of a late transition metal compound component and 10% to 80% by volume of a high silica zeolite component, wherein the electropositive metal component comprises a Group 3 metal, a Group 4 metal, a lanthanide metal, titania, zirconia, yttria or vanadia.

59. (Previously presented) The method of Claim 58, wherein the electropositive metal component is a high surface area titania.
60. (Previously presented) A method of decontaminating a gas, comprising removing one or more of neutral polar protic, neutral polar aprotic, alkaline and polar acidic contaminants from the gas by passing the gas through a body of decontaminant, the decontaminant comprising 10% to 80% by volume of an electropositive metal component, 10% to 80% by volume of a late transition metal compound component and 10% to 80% by volume of a high silica zeolite component, wherein the high silica zeolite component has a silica to alumina ratio of at least 90 to 1.
61. (Previously presented) The method of Claim 60, wherein the high silica zeolite component has a silica to alumina ratio of at least 400 to 1.
62. (Previously presented) A method of decontaminating a gas, comprising removing one or more of neutral polar protic, neutral polar aprotic, alkaline and polar acidic contaminants from the gas by passing the gas through a body of decontaminant, the decontaminant comprising 10% to 80% by volume of an electropositive metal component, 10% to 80% by volume of a late transition metal compound component and 10% to 80% by volume of a high silica zeolite component, wherein the high silica zeolite component is Zeolite Y or Zeolite ZSM-5.
63. (Previously presented) A method of decontaminating a gas, comprising removing one or more of neutral polar protic, neutral polar aprotic, alkaline and polar acidic contaminants from the gas by passing the gas through a body of decontaminant, the decontaminant comprising 10% to 80% by volume of an electropositive metal component, 10% to 80% by volume of a late transition metal compound component and 10% to 80% by volume of a high silica zeolite component, wherein the late transition metal compound component is a late transition metal oxide.

64. (Previously presented) The method of Claim 63, wherein the late transition metal oxide is a Group 7 to 14 metal oxide.
65. (Previously presented) The method of Claim 64, wherein the late transition metal oxide is a Group 10 to 14 metal oxide.
66. (Previously presented) The method of Claim 64, wherein the late transition metal oxide is iron oxide, copper oxide, nickel oxide or zinc oxide.
67. (Previously presented) A method of decontaminating a gas, comprising removing one or more of neutral polar protic, neutral polar aprotic, alkaline and polar acidic contaminants from the gas by passing the gas through a body of decontaminant, the decontaminant comprising 10% to 80% by volume of an electropositive metal component, 10% to 80% by volume of a late transition metal compound component and 10% to 80% by volume of a high silica zeolite component, wherein the late transition metal component is a reduced late transition metal support on a high surface area inorganic material.
68. (Previously presented) The method of Claim 67, wherein the high surface area inorganic material has a surface area of at least 100 m² per gram.
69. (Previously presented) The method of Claim 67, wherein the high surface area inorganic material is silicon dioxide, aluminum oxide, titanium dioxide or magnesium oxide.
70. (Previously presented) A method of decontaminating a gas, comprising:
removing one or more of neutral polar protic, neutral polar aprotic, alkaline and polar acidic contaminants from the gas by passing the gas through a body of decontaminant, the decontaminant comprising 10% to 80% by volume of an electropositive metal component, 10% to 80% by volume of a late transition metal compound component and 10% to 80% by volume of a high silica zeolite component; and

purifying an isolated environment with the gas after removing the contaminants from the gas.

71-72. (Canceled)

73. (Previously presented) A method of decontaminating a gas, comprising removing amine contaminants, acid contaminants or both, from the gas by passing the gas through a body of decontaminant, the decontaminant comprising about 40% by volume of an electropositive metal component, about 20% by volume of a high silica zeolite component and about 40% by volume of a late transition metal component.

74-76. (Canceled)

77. (Previously presented) A method of decontaminating a gas, comprising removing one or more of alkaline, acidic polar, neutral non-polar aprotic and environmental gas contaminant from the gas by passing the gas through a body of decontaminant, the decontaminant comprising about 40% by volume of an electropositive metal component, about 50% by volume of a high silica zeolite component and about 10% by volume of a late transition metal component.

78. (Previously presented) A method of decontaminating a gas, comprising removing one or more of alkaline, acidic polar, neutral non-polar aprotic and environmental gas contaminants from the gas by passing the gas through a body of decontaminant, the decontaminant comprising 10% to 80% by volume of a electropositive metal component, 10% to 80% by volume of a high silica zeolite component and 10% to 80% by volume of a late transition metal compound component, wherein the electropositive metal component comprises a Group 3 metal, a Group 4 metal, a lanthanide metal, titania, zirconia, yttria or vanadia.

79. (Previously presented) The method of Claim 78, wherein the electropositive metal component is a high surface area titania.
80. (Previously presented) A method of decontaminating a gas, comprising removing one or more of alkaline, acidic polar, neutral non-polar aprotic and environmental gas contaminants from the gas by passing the gas through a body of decontaminant, the decontaminant comprising 10% to 80% by volume of a electropositive metal component, 10% to 80% by volume of a high silica zeolite component and 10% to 80% by volume of a late transition metal compound component, wherein the high silica zeolite component has a silica to alumina ratio of at least 90 to 1.
81. (Previously presented) The method of Claim 80, wherein the high silica zeolite component has a silica to alumina ratio of at least 400 to 1.
82. (Previously presented) A method of decontaminating a gas, comprising removing one or more of alkaline, acidic polar, neutral non-polar aprotic and environmental gas contaminants from the gas by passing the gas through a body of decontaminant, the decontaminant comprising 10% to 80% by volume of a electropositive metal component, 10% to 80% by volume of a high silica zeolite component and 10% to 80% by volume of a late transition metal compound component, wherein the high silica zeolite component is Zeolite Y or Zeolite ZSM-5.
83. (Previously presented) A method of decontaminating a gas, comprising removing one or more of alkaline, acidic polar, neutral non-polar aprotic and environmental gas contaminants from the gas by passing the gas through a body of decontaminant, the decontaminant comprising 10% to 80% by volume of a electropositive metal component, 10% to 80% by volume of a high silica zeolite component and 10% to 80% by volume of a late transition metal compound component, wherein the late transition metal compound component is a late transition metal oxide.

84. (Previously presented) The method of Claim 83, wherein the late transition metal oxide is a Group 7 to 14 metal oxide.
85. (Previously presented) The method of Claim 84, wherein the late transition metal oxide is a Group 10 to 14 metal oxide.
86. (Previously presented) The method of Claim 84, wherein the late transition metal oxide is iron oxide, copper oxide, nickel oxide or zinc oxide.
87. (Previously presented) A method of decontaminating a gas, comprising removing one or more of alkaline, acidic polar, neutral non-polar aprotic and environmental gas contaminants from the gas by passing the gas through a body of decontaminant, the decontaminant comprising 10% to 80% by volume of a electropositive metal component, 10% to 80% by volume of a high silica zeolite component and 10% to 80% by volume of a late transition metal compound component, wherein the late transition metal component is a reduced late transition metal support on a high surface area inorganic material.
88. (Previously presented) The method of Claim 87, wherein the high surface area inorganic material has a surface area of at least 100 m² per gram.
89. (Previously presented) The method of Claim 87, wherein the high surface area inorganic material is silicon dioxide, aluminum oxide, titanium dioxide or magnesium oxide.
90. (Previously presented) A method of decontaminating a gas, comprising:
removing one or more of alkaline, acidic polar, neutral non-polar aprotic and environmental gas contaminants from the gas by passing the gas through a body of decontaminant, the decontaminant comprising 10% to 80% by volume of a electropositive metal component, 10% to 80% by volume of a high silica zeolite component and 10% to 80% by volume of a late transition metal compound component;
and

purifying an isolated environment with the gas after removing the contaminants from the gas.

91. (New) A method of decontaminating a gas, wherein said gas comprises one or more of neutral polar protic, neutral polar aprotic, alkaline and polar acidic contaminants, the method comprising removing said contaminants from the gas by passing the gas through a body of decontaminant comprising 10% to 80% by volume an electropositive metal component, 10% to 80% by volume of a late transition metal compound component and 10% to 80% by volume of a high silica zeolite component.
92. (New) The method of Claim 91, wherein the decontaminant comprises a greater proportion of the electropositive metal component than the high silica zeolite component.
93. (New) The method of Claim 91, wherein the decontaminant comprises a smaller proportion of high silica zeolite component than a combination of the electropositive metal component and the late transition metal compound component.
94. (New) The method of Claim 91, wherein the gas comprises water or an alcohol contaminant.
95. (New) The method of Claim 94, wherein the gas comprises a water contaminant.
96. (New) The method of Claim 91, wherein the gas comprises a nitrogen oxide, a sulfur oxide, an organic sulfide or an alkyl halide contaminant.
97. (New) The method of Claim 96, wherein the gas comprises a sulfur oxide or a nitrogen oxide contaminant.
98. (New) A method of decontaminating a gas, wherein said gas comprises one or more of alkaline, acidic polar, neutral non-polar aprotic and environmental gas contaminants, the

method comprising removing said contaminants from the gas by passing the gas through a body of decontaminant comprising 10% to 80% by volume of a electropositive metal component, 10% to 80% by volume of a high silica zeolite component and 10% to 80% by volume of a late transition metal compound component.

99. (New) The method of Claim 98, wherein the gas comprises an amine contaminant, an acid contaminant or both.
100. (New) The method of Claim 98, wherein the gas comprises a siloxane contaminant, a hydrocarbon contaminant or both.
101. (New) The method of Claim 98, wherein the decontaminant comprises a smaller proportion of electropositive metal component than a combination of the high silica zeolite component and the late transition metal compound component.
102. (New) The method of Claim 98, wherein the decontaminant comprises a greater proportion of electropositive metal component than late transition metal component, and a greater proportion of high silica zeolite component than late transition metal component.